Info-Hams Digest   Sun, 11 Apr 93   Volume 93 : Issue 448

Today's Topics:
                        Cable TVI interference
                         Couple in the area
        Doppler Equipment (was: want jammer in slammer) (2 msgs)
                     DSP-2232 and Kenwood radios
        fido node regurgitating articles in rec.radio.amateur.*
                   KEPLERIAN BULLETIN 15 ARLK015
                  Looking for 900 MHz antenna mfg.
                    Please Help: ATV on 900MHz
                  Radio Shack HTX-202 Help needed.
          rec.radio.amateur reorg/RFD discussion summary 4/11
                    STS-56 Element Set GSFC-010

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

You are right -- it's entirely the cable TV company's responsibility to
keep unwanted signals out of the cable. The cable frequencies are the
same as frequencies allocated to other things outside the cable.

If the cable company is picking up unwanted signals, the cable company is
also _emitting_ unwanted signals (through the same holes), and thus is

in violation of FCC regulations.

```
--
:-  Michael A. Covington, Associate Research Scientist   :    *****
:-  Artificial Intelligence Programs     mcovingt@ai.uga.edu :  *********
:-  The University of Georgia              phone 706 542-0358 :   *   *   *
:-  Athens, Georgia 30602-7415 U.S.A.    amateur radio N4TMI :  ** *** **  <><
```

Date: Sun, 11 Apr 1993 17:39:19 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!star.enet.dec.com!kenney@decwrl.dec.com
Subject: Couple in the area
To: info-hams@ucsd.edu

    Don't know about clubs but a quick scan of the directory shows 3 2m
    repeaters. Surprised me when you consider the size of the island.

    St Thomas 146.630 - W2IBJ   open
    St Thomas 146.810 - KP2O   open closed autopatch
    St Thomas 146.950 - W2IBJ   open closed autopatch
    Tortola BVI   146.730 - VP2V   open

Date: Sun, 11 Apr 1993 12:50:40 GMT
From: anomaly.sbs.com!kd1hz@uunet.uu.net
Subject: Doppler Equipment (was: want jammer in slammer)
To: info-hams@ucsd.edu

Speaking of wanting jammers in the slammer, we have several in this area
I would like to catch. Can anyone recommend some decent Doppler direction
finding equipment?

MD
--
-- Michael P. Deignan, KD1HZ | Since I *OWN* SBS.COM, these opinions
-- Domain: mpd@anomaly.sbs.com | generally reflect those of my company.
--   UUCP: uunet!anomaly!mpd |
-- Telebit: +1 401 455 0347 |

Date: Sun, 11 Apr 1993 19:21:33 GMT

From: sdd.hp.com!saimiri.primate.wisc.edu!zaphod.mps.ohio-state.edu!
magnus.acs.ohio-state.edu!csn!boulder!ucsu!spot.Colorado.EDU!
weaverb@network.UCSD.EDU
Subject: Doppler Equipment (was: want jammer in slammer)
To: info-hams@ucsd.edu

kd1hz@anomaly.sbs.com (Michael P. Deignan) writes:

>Speaking of wanting jammers in the slammer, we have several in this area
>I would like to catch. Can anyone recommend some decent Doppler direction
>finding equipment?

  Commerical doppler units run about $800.00-$1000.00. We build
one for about $100.00 but is was so much of a pain in the a** to
get it working that I would probably never build another one. You
should be able to track the jammers down with nothing more than
a yagi if they are on the air that much.

--
Brian Weaver (303)786-0021   University of Colorado at Boulder
weaverb@boulder.Colorado.EDU   (internet)
KD6CFA@N0ARY.#NOCAL.CA.USA.NA   (packet radio)
PGP Public key available via finger or request.

Date: 9 Apr 93 15:53:59 GMT
From: usc!howland.reston.ans.net!bogus.sura.net!udel!news.intercon.com!psinntp!
lupine!hansen1!phil@network.UCSD.EDU
Subject: DSP-2232 and Kenwood radios
To: info-hams@ucsd.edu

I have been working with my DSP-2232 and I am wondering how others are
connecting them up to their Kenwood radios! I have been using the FIXED
OUTPUT that comes out of the radio and putting this direclty into the DSP-2232

I am afraid that this might be too much audio and is swamping the AGC.
I think this might be happening since when I monitor HF packet the DCD light
stays on all of the time (even when no signal is present, just noise)

I will be happy to collect all responses and post a follow up!

Thanks!

DE KJ6NN

phil@ncd.com

Date: Sat, 10 Apr 1993 17:10:23 GMT
From: valinor.mythical.com!n5ial!jim@uunet.uu.net
Subject: fido node regurgitating articles in rec.radio.amateur.*
To: info-hams@ucsd.edu

please excuse the cross-posting, but I'm seeing this in all 3 r.r.a groups,
so in this case, it seems appropriate....my apologies if this isn't a valid
assumption (but then, the post actually only gets sent once either way, so
it's not as if it generates any extra net.traffic or anything).

it would seem that once again, there is a fido node somewhere that seems to
think that the rest of the world wants to see duplicate copies of every
single post. anyone know how to handle this?

for example, in rec.radio.amateur.policy (when I finally decided I wasn't
imagining things), I saw a post from greg@core.rose.hp.com (Greg Dolkas).
a few articles later, guess what....that exact same post is repeated.
however, this time the article claims to be from
Greg.Dolkas@f716.n109.z1.his.com (Greg Dolkas).

the last time I saw this was about a week ago in comp.os.linux, and it
was a fido node that wasn't configured right, or something like that.
the symptoms were identical, and just as could quickly become the case
here, it was no doubt costing a lot of $$$ for some folks (a high-volume
newsgroup is bad enough...but when someone decides to double that volume
with duplicate postings, that's *REALLY* bad).

anyone know how to proceed in getting these duplicates stopped?
    --jim

--
#include <std_disclaimer.h>   73 DE N5IAL (/4)

INTERNET: jim@n5ial.mythical.com | j.graham@ieee.org   ICBM: 30.23N 86.32W
AMATEUR RADIO: n5ial@w4zbb (Ft. Walton Beach, FL)   AMTOR SELCAL: NIAL

E-mail me for information about KAMterm (host mode for Kantronics TNCs).

Date: Sun, 11 Apr 93 17:50:22 GMT
From: usc!zaphod.mps.ohio-state.edu!mstar!n8emr!bulletin@network.UCSD.EDU
Subject: KEPLERIAN BULLETIN 15 ARLK015
To: info-hams@ucsd.edu

```
================================================================
|    Automatic relayed from packet radio via                   |
|              N8EMR's Ham BBS, 614-895-2553                    |
================================================================
```

ZCZC SK27
QST DE W1AW
KEPLERIAN BULLETIN 15 ARLK015
FROM ARRL HEADQUARTERS
NEWINGTON, CT APRIL 10, 1993
TO ALL RADIO AMATEURS

THANKS TO NASA, AMSAT AND N3FKV FOR THE FOLLOWING KEPLERIAN DATA.

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:
1 AAAAAU 00 0 0 BBBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

AO-10
1 14129U 83058 B 93086.54729714 0.00000030   99999-4 0 9807
2 14129 27.0769 33.3255 6013784 68.5627 343.3267 2.05875703 45615
RS-10/11
1 18129U 87054 A 93096.63099663 0.00000062   61682-4 0 5927
2 18129 82.9222 291.5063 0011854 149.4028 210.7835 13.72312990290038
UO-11
1 14781U 84021 B 93092.55360379 0.00000772   13978-3 0 4088
2 14781 97.8188 122.2787 0010594 238.8836 121.1330 14.68934808485616
RS-12/13
1 21089U 91007 A 93088.74695223 0.00000065   62998-4 0 3973
2 21089 82.9219 341.0305 0028665 267.5693 92.2177 13.74018187107617
AO-13
1 19216U 88051 B 93094.57565999 -.00000083   99999-4 0 5885
2 19216 57.6597 323.9229 7250855 312.0985   5.9268 2.09722418 5314
UO-14
1 20437U 90005 B 93095.71291150 0.00000189   81439-4 0 7367
2 20437 98.6193 180.7928 0011522 36.8959 323.3016 14.29756833167077
AO-16
1 20439U 90005 D 93089.76783177 0.00000211   90049-4 0 5497
2 20439 98.6231 175.7210 0012061 53.8452 306.3845 14.29814790166231
DO-17
1 20440U 90005 E 93097.25173422 0.00000199   85246-4 0 5520
2 20440 98.6260 183.3279 0011876 32.5454 327.6458 14.29952303167313
WO-18
1 20441U 90005 F 93094.21140983 0.00000167   72520-4 0 5548
2 20441 98.6251 180.3456 0012857 41.3725 318.8432 14.29932136166884

```
LO-19
1 20442U 90005  G 93095.26743128 0.00000198            84646-4 0  5518
2 20442  98.6268 181.5585 0012835  38.1031 322.1057 14.30021772167046
FO-20
1 20480U 90013  C 93092.62074222 -.00000014           -25920-5 0  4427
2 20480  99.0530 323.0884 0539879 257.8229  96.1923 12.83218562147624
AO-21
1 21087U 91006  A 93096.56488408 0.00000064            60640-4 0  7351
2 21087  82.9383 105.8376 0034016 219.8904 139.9773 13.74514091109600
UO-22
1 21575U 91050  B 93091.08602551 0.00000259            10182-3 0  2492
2 21575  98.4805 168.4281 0007380 165.3488 194.7914 14.36803758 89590
KO-23
1 22077U 92052  B 93088.03576321 0.00000000            99999-4 0   967
2 22077  66.0783 132.0060 0009074 207.7782 150.9961 12.86277591 29533
MIR
1 16609U 86017  A 93098.36136751 0.00007440            10403-3 0  9989
2 16609  51.6215 210.0747 0000311  57.1914 302.9498 15.57947887408241
STS56
1 22621U 93023  A 93099.91596064 0.00061455            17760-3 0    85
2 22621  57.0029 171.1182 0004930 270.1565  62.8602 15.92532175   285


KEPLERIAN BULLETINS ARE TRANSMITTED TWICE WEEKLY FROM W1AW.
THE NEXT SCHEDULED TRANSMISSION OF THESE DATA WILL BE TUESDAY,
APRIL 13, 1993, AT 2230Z ON BAUDOT, AMTOR AND ASCII.
NNNN
```

Date: 9 Apr 93 15:35:30 GMT
From: usc!howland.reston.ans.net!bogus.sura.net!udel!news.intercon.com!psinntp!
lupine!hansen1!phil@network.UCSD.EDU
Subject: Looking for 900 MHz antenna mfg.
To: info-hams@ucsd.edu

In article <1pamttINN70k@darkstar.UCSC.EDU> matthew@cats.ucsc.edu (Matthew Todd
Kaufman) writes:
>I am looking for pointers to makers of antennas suitable for 902-928 MHz
>apread spectrum work. preferably ones targeted for the amateur market,
>rather than the commercial market (cost IS an issue). I have some designs,
>but I don't want to get into the business of making antennas.

Try Comet Antenna... They have several beams and verticals.

I have used a several 1.2 GHz antennas from them on repeater sites for years!

Contact:

```
    NCG Companies (Comet)
        1275 North Grove St.
        Anaheim, CA 92806
        Voice:           714-630-4541
      FAX:      714-630-7024
        Outside CA 800-962-2611
```

Phil
de kj6nn

P.S. I have no commercial ties with Comet, I just use/buy their antennas!

Date: 11 Apr 1993 19:47:32 GMT
From: swrinde!gatech!howland.reston.ans.net!usenet.ins.cwru.edu!
cleveland.Freenet.Edu!ag877@network.UCSD.EDU
Subject: Please Help: ATV on 900MHz
To: info-hams@ucsd.edu

I live in the Great Lakes area, and as such we are restricted to
only one ATV frequency on 440, ie: 439.25. (Remember from your
Tech test that this is due to the Canadian/US "A-line" restriction
disallowing any amateur work on 400-430Mhz.) By being this bound,
we can not really enjoy ATV here. One simplex freq on 440, and the
1.2GHz rigs are really very expensive. What we need is an ATV
repeater in this area.

That brings me to my question. I would like to set up a repeater
on 910MHZ using the "Rabbit" - the video rebroadcaster thingee.
I have heard of a club in Austin, TX who has done this, and I
would like to get in touch to find out exactly how it was done.
Does anyone know the name and address of the licensed trustee of
the club? Or at least the name/address (internet address) of one
of its members. Please respond as I would like to do this by the
end of this summer, if possible. Thanks. 73 de N8MGU
--
Larry Howard Mittman
Cleveland Freenet ID: ag877
Amateur Radio Packet Address: N8MGU@N8APU.#BNEOH.OH.USA.NA
"MAGOO", by George!

Date: 11 Apr 93 21:08:48 GMT
From: swrinde!zaphod.mps.ohio-state.edu!ub!acsu.buffalo.edu!noah@network.UCSD.EDU
Subject: Radio Shack HTX-202 Help needed.
To: info-hams@ucsd.edu

Hello all I hope someone out in net-land can help me out. I just bought
a slightly used Htx-202 radio and I need the book for it. Is someone
willing to xerox one and send it to me ? Please ? I can't seem to figure
this thing out. I'm able to set channel one but that's it. I need to
know how to: set all the channels and how to get it to scan the channels.
Thanks in advance for the help.

73 !
Philip D. Noah Jr.
SUNY University Center at Buffalo
O.S.S. - Network repair   VAX: Opnsnoah@Ubvms.cc.buffalo.edu
108 Computer Center   IBM: Opnsnoah@ubvm.cc.buffalo.edu
Buffalo, Ny   SUN: noah@acsu.buffalo.edu
14260
office: 716-645-3508   pager: 716-774-4818

Date: 11 Apr 93 12:21:36 GMT
From: rtech!amdahl!amdahl!ikluft@decwrl.dec.com
Subject: rec.radio.amateur reorg/RFD discussion summary 4/11
To: info-hams@ucsd.edu

This article contains 5 subtopics:
     Current Status of the Discussion
     How to Participate in the Discussion
     Summary of RFD proposed newsgroups (Option I)
     Summary of RFD proposed newsgroups (Option II)
     Notes from the discussion so far

Current Status of the Discussion

The RFD (Request for Discussion) for the reorganization of rec.radio.amateur
was posted on March 26 to news.announce.newgroups, news.groups, and all the
subgroups of rec.radio.amateur. A summary of the proposed newsgroups can be
found later in this article.

We have passed the half-way point in the 30-day discussion period. Current
tallies of opinions posted to news.groups are as follows:
     in favor: 25 people 93 articles
     opposed: 14 people 30 articles
     undecided or unclear: 10 people 18 articles
(the "unclear" category only includes replies that were off the subject)

These numbers may seem small by UseNet standards but it has actually been one

of the larger of many ongoing discussions on news.groups. Support has been
running around the 2-to-1 in favor area since the discussion started. Due
to the support expressed, we expect that it will be possible to issue a CFV
(Call for Votes) some time after the end of the discussion period, which will
conclude on April 26, 1993.

How to Participate in the Discussion

If you have not yet expressed an opinion on the proposed split, you can make
it easy on yourself by just replying to this article onto news.groups (the
Followup-To line already specifies that for you) and say
     I support the reorganization of rec.radio.amateur
or
     I do not support the reorganization of rec.radio.amateur

YOUR REPLY MUST BE POSTED TO NEWS.GROUPS IN ORDER TO BE AN OFFICIAL PART OF
THE NEWSGROUP CREATION PROCESS. You may cross-post to rec.radio.amateur.misc
if you prefer to.

It would be even more helpful, if you support the split of r.r.a.misc, to
indicate which option from the RFD that you prefer. It's OK to say you like
both. They are summarized below. You can still make things pretty easy for
yourself by only posting
     I support the reorganization of rec.radio.amateur (Option I)
or
     I support the reorganization of rec.radio.amateur (Option II)
or
     I support the reorganization of rec.radio.amateur (either option)

Here's a question to ask yourself as you consider these proposals:
  Which proposal would make you more likely to vote for all the newsgroups
  when voting time arrives? (Separate concurrent votes will be held for
  each newsgroup in accordance with the newsgroup creation guidelines.)

Summary of RFD proposed newsgroups (Option I)

(all groups unmoderated)
Newsgroup name   description
--------------   -------------------------------
rec.radio.amateur.misc   all Ham radio topics not covered below
                                          i.e. video, stories, humor, new topics
                                          [no modification to existing newsgroup]
rec.radio.amateur.policy   regulations & policy issues
                                          [no modification to existing newsgroup]
rec.radio.amateur.digital.misc   packet radio & other digital modes

```
                                          [includes old rec.radio.amateur.packet]
rec.radio.amateur.digital.tcp-ip          TCP/IP via packet radio
rec.radio.amateur.operating               Operating procedures and questions: DX,
                                          CW, contests, propagation, repeaters
rec.radio.amateur.products                manufactured equipment, modifications
rec.radio.amateur.instruction             Ham radio instruction & examination
rec.radio.amateur.construction            homebrewing & experimentation
rec.radio.amateur.space                   amateur radio in space: satellites,
                                          earth-moon-earth (EME), shuttle, MIR
rec.radio.amateur.emerg-services          emergency services: RACES, ARES, NTS


Summary of RFD proposed newsgroups (Option II - "the .tech option")
-------------------------------------------------------------------
(all groups unmoderated)
Newsgroup name                            description
--------------                            -----------------------------
rec.radio.amateur.misc                    all Ham radio topics not covered below
                                          i.e. video, stories, humor, new topics
                                          [no modification to existing newsgroup]
rec.radio.amateur.policy                  regulations & policy issues
                                          [no modification to existing newsgroup]
rec.radio.amateur.digital.misc            packet radio & other digital modes
                                          [includes old rec.radio.amateur.packet]
rec.radio.amateur.digital.tcp-ip          TCP/IP via packet radio
rec.radio.amateur.operating               Operating procedures and questions: DX,
                                          CW, contests, propagation, repeaters
rec.radio.amateur.emerg-services          emergency services: RACES, ARES, NTS
rec.radio.amateur.tech                    Technical discussions about Ham Radio:
                                          construction, theory, examinations,
                        video


Notes from the discussion so far
--------------------------------


The following notes may help you determine if any suggestions you are
considering have already been discussed.  Your opinion is important so be
sure to show your support or opposition and make any suggestions you believe
would help make this a better, more successful proposal.

* There has been strong agreement that r.r.a.misc has too much traffic.
* One of the main points made by those opposing the split has been a concern
  that there may be a lot of cross-posting of articles across the proposed
  newsgroups.  r.r.a.policy was commonly used as an example.
* Rebuttal to the cross-posting argument pointed out that even in r.r.a.policy
  there is currently very little cross-posting.  With numbers to show this was
  a misconception, one person withdrew opposition and began supporting the
```

split.
* A point made by proponents of the split was that r.r.a.policy is not a good
  comparison. All the proposed newsgroups were modeled after r.r.a.packet,
  which was made for a subject that many Hams are interested in. r.r.a.policy
  was just a place to throw away an unwanted subject. Still others said that
  r.r.a.policy has plenty of ongoing policy-related discussion and has also
  worked pretty well.
* On the subject of cross-posting, there has been some discussion about a
  netiquette guide like that found on rec.aviation for the past several years.
  The idea may be considered regardless of the result of the vote.
* Some concern was expressed by both supporters and opposers about the
  Info-Hams mail list. A common concern was that the mail lists will need to
  match the newsgroups in order for this to work. Comments from Brian Kantor
  indicated a wait-and-see position. He did not rule out making new mail lists
  if the newsgroups pass but he is understandably not enthusiastic since he
  has plenty of other work to do.
* Two people questioned why the proposal includes making a subhierarchy for
  r.r.a.digital.misc and r.r.a.digital.tcp-ip. It was pointed out that these
  were requested by users of r.r.a.packet due to the explosion of new digital
  modes. There has been no opposition from the r.r.a.packet community.
* Most people supporting the split have not indicated which option (I or II)
  they support. It was noted that it's been difficult to determine which will
  be the most-likely-to-succeed choice to put on the CFV.
* Those who prefer Option I seem to do so because the newsgroup names are
  clearer and more focused. It was said that r.r.a.tech is too general to
  differentiate itself significantly from r.r.a.misc. So the advantage is
  that Option I avoids some confusion. (Option I adds 7 newsgroups)
* Those who prefer Option II (r.r.a.tech) seem to do so because it has fewer
  newsgroups than Option I while still offering an area for technical
  discussion away from r.r.a.misc. So the advantage is that Option II is not
  as large an increase in newsgroups. (Option II adds 5 newsgroups)
* A preference was stated to change r.r.a.products to r.r.a.equipment.
  Rebuttals said that would be confusing next to r.r.a.construction. The
  suggestion did not have enough support to be added to the proposal.
* A preference was stated to change r.r.a.construction to r.r.a.homebrewing.
  Rebuttals said that the name would not be clear enough to outsiders or
  newcomers. The suggestion did not have enough support to be added to the
  proposal.
* A preference was stated to change r.r.a.operating to r.r.a.dx. Rebuttals
  said this would eliminate coverage for many other aspects of operating
  a radio. (Notably, UHF/VHF repeaters.) Also, this was considered on the
  rra-reorg mail list prior to the RFD, where DX and repeaters were combined
  to make r.r.a.operating. Another suggestion was to add r.r.a.dx alongside
  r.r.a.operating. The suggestion does not appear to have enough support but
  some discussion may continue.
* A preference was stated to add an r.r.a.bulletins newsgroup. No replies
  were made to a subsequent poll on the subject so the suggestion is assumed
  to have insufficient support. One problem was noted that it mostly overlaps

rec.radio.info which serves all of rec.radio, including rec.radio.amateur.*.
* A couple articles suggested adding an r.r.a.flame newsgroup. Most
  participants seem to have assumed that was said tongue-in-cheek. It has not
  been taken seriously.
* r.r.a.space appears to have significant support. It will probably be on the
  CFV (call for votes) whether Option I or II is selected as the final model.
  It was noted that this will mean that Option II will add 6 newsgroups
  instead of 5. (r.r.a.space was previously only on Option I.)
* A suggestion was made to add an RDF (radio direction finding) newsgroup to
  the proposal. The original suggestion was to call it r.r.a.jamming. Another
  article suggested a clearer name of r.r.a.rdf. An opposing opinion said
  there is not enough traffic to make a separate newsgroup for this topic.
  This subject is not done being discussed but does not yet have enough support
  in the discussion to add it to the proposal.
--
Ian Kluft KD6EUI PP-ASEL   Amdahl Corporation, Open Systems Development
ikluft@uts.amdahl.com   Santa Clara, CA
[disclaimer: any opinions expressed are mine only... not those of my employer]

Date: 11 Apr 93 11:18:42 GMT
From: news-mail-gateway@ucsd.edu
Subject: STS-56 Element Set GSFC-010
To: info-hams@ucsd.edu

SB SAREX@AMSAT $STS-56.006
STS-56 Keplerian Element Set GSFC-010

The following represents the latest Keplerian elements for STS-56 as
generated by Ron Parise, WA4SIR at the Goddard Space Flight Center.

 STS-56
 1 22621U 93 23 A 93100.61115846 0.00060906 00000-0 17653-3 0   105
 2 22621 57.0037 167.8988 0004603 270.8271 89.2279 15.92485654   392

 Satellite: STS-56
 Catalog number: 22621
 Epoch time: 93100.61115846   (10 APR 93   14:40:04.09 UTC)
 Element set: GSFC-010
 Inclination: 57.0037 deg
 RA of node: 167.8988 deg   Space Shuttle Flight STS-56
 Eccentricity: 0.0004603   Keplerian Elements
 Arg of perigee: 270.8271 deg
 Mean anomaly: 89.2279 deg
 Mean motion: 15.92485654 rev/day   Semi-major Axis: 6673.4618 Km
 Decay rate: 0.61E-03 rev/day*2   Apogee Alt: 298.15 Km

```
Epoch rev:              39              Perigee Alt:        292.00 Km


 NOTE - This element set is based on NORAD element set # 010.
        The spacecraft has been propagated to the next ascending
        node, and the orbit number has been adjusted to bring it
        into agreement with the NASA numbering convention.

Submitted by Frank Bauer, KA3HDO for the SAREX working group
E-mail:  ka3hdo@amsat.org
Alt E-mail:  abfhb@stdvax.gsfc.nasa.gov

/EX

------------------------------

End of Info-Hams Digest V93 #448
******************************
```